



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Haskew

Serial No.: 10/087,724

Examiner: Alfred Basichas

Filed: March 1, 2002

Art Unit: 3749

For: DELIVERY SYSTEM FOR LIQUID CATALYSTS

Mail Stop Non Fee/Amendment
Commissioner of Patents and Trademarks
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Alexandria, VA 22313-1450

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TECHNOLOGY CENTER R3700

DECLARATION UNDER 37 C.F.R. § 1.132

Dear Sir:

I, James Haskew declare the following:

1. I am the sole inventor of the subject matter described and claimed in the United States Patent Application Serial No.10/087,724, filed March 1, 2002, entitled DELIVERY SYSTEM FOR LIQUID CATALYSTS, which subject matter is disclosed and claimed in the above-referenced patent application.
2. I am one of the co-authors of an article entitled SAE Technical Paper which was cited against the application referenced above, and am the designer and creator of Attachment A to that SAE Technical Paper.
3. To my knowledge, the system exactly as shown in Attachment A to the SAE Technical Paper was not ever built or used in a product. It was created only for submission with the SAE Technical Paper.
4. It is my recollection, however, that there was a system distributed to the public through the company GasSaver Corp. in about 1990 that was similar to that system. I remember that I was working on the design for the system while associated with GasSaver Corp. This system included a pump with a duck-bill valve. During low RPMs, the pump would draw catalyst through the low RPM line using the duck-bill valve pump, then through the high RPM bypass junction and to the engine. During high RPMs, the engine would draw catalyst through the high RPM line, then through the high RPM bypass junction and to the engine. When the bypass valve allowed the suction of the engine to draw catalyst through the high RPM bypass valve, the duck-bill valve pump continued to operate. Because the catalyst moving through the high RPM line was drawn by the engine at such a high velocity, much greater than the pump could produce, the catalyst flow in the low RPM line was stopped or greatly diminished by the failure of the duck-bill valve to close, thus rendering the pump ineffective. In other words, the pump continued to operate, but failed to pump. Sometimes, an amount of catalyst was permitted to flow through the low RPM line at the same time the catalyst was flowing through the high RPM line. In such cases, however,

the amount of catalyst in the low RPM line was significantly reduced from the amount that flowed when catalyst was flowing only through the low RPM line.

5. One way in which my current design differs from my original design is that I have replaced the type of valve that is used in the pump with a valve that maintains a majority of the catalyst flow from the low RPM line even when the high RPM line is initiated. By substantially maintaining the initial low RPM catalyst flow and adding to it with a high RPM flow, different from my earlier designs, I am able to return significantly more consistent and beneficial low, medium and high RPM results than before. Earlier designs were lacking, particularly in the medium range, because the catalyst supply would drop so significantly in switching from low RPM to high RPM operation. My new design works better than the 1990 design in each of the low, medium and high RPM ranges.

6. I further declare that all statements made herein of my own knowledge are true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the above-referenced application or any patent issuing thereon.

Date: 3-5-04

By:


James W. Haskew